

Question structure and ellipsis

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Ellipsis; Parallelism; Focus; Acceptability; Magnitude estimation; English

Many accounts of acceptability in ellipsis fall into one of two families. Identity-based theories place constraints on conditions licensing ellipsis. Because constraints are stated in terms of syntactic (Sag 1976; Arregui et al. 2006; Merchant 2008) or semantic identity (Dalrymple et al. 1990; Hardt 1993), such accounts emphasize recoverability, and predict antecedent mismatch effects to be limited to cases of ellipsis. By contrast, focus-based theories link well-formedness to focus structure (Winkler 2000; Kertz 2010). Ellipsis is, among other things, a focusing device: elliptical sentences are compatible with fewer interpretations than their non-elliptical counterparts. These theories crucially differ from identity accounts, predicting that mismatch effects should be observed with or without ellipsis. Here, we first present acceptability data demonstrating that neither type of theory alone can account for the pattern of well-formedness observed across ellipsis types (VP ellipsis, pseudogapping, sluicing). We propose that ellipsis-sensitive mismatch effects result not from identity requirements enforced directly on structural representations, but rather from increased complexity in the question(s) projected (in the Question Under Discussion sense). Predictions of this proposal are tested in an experiment manipulating question complexity.

Experiments 1-2 (magnitude estimation) compare pseudogapping and sluicing with VPE, showing that neither identity nor focus theories can single-handedly explain the range of data observed. As predicted by identity accounts (incompatible with focus accounts), VPE (1) and pseudogapping (2) show ellipsis-mismatch interactions (VPE: $p < .0001$; pseudogapping: $p < .01$): degradation due to mismatch is stronger with ellipsis than without. However, sluicing (3) patterns differently: while mismatch ($p < .0001$) and ellipsis ($p < .01$) independently affect acceptability, there is no ellipsis-mismatch interaction (predicted on a strict identity account).

A unifying solution in terms of question complexity. We propose that mismatch in sentences like (1)-(2) degrades acceptability by increasing the complexity of the question jointly projected by antecedent and ellipsis clauses. Ellipsis types differ in baseline complexity: VPE projects a single question with one focus (4-a), pseudogapping, a single question with two foci (5-a), and sluicing, two questions (6-a). For VPE and pseudogapping (4-b)/(5-b), mismatch increases how many questions must be projected from the surface string for the discourse to support the sentence. In sluicing (6-b), each clause projects a separate question, irrespective of structural match. Consequently, while reconstructing the elided clause based on inexact antecedents (mismatch) or by accessing discourse representations rather than surface forms (ellipsis) may contribute to complexity independently, degradation due to mismatch is not contingent on ellipsis.

The question-projection account suggests that VPE or pseudogapping can be made to resemble sluicing if embedded in similar question structures. **Experiment 3** (offline questionnaire) compares mismatch in sluicing (7-c) and VPE, with a one- or two-question context supplied for VPE (7-a)/(7-b). Despite having identical structures, the mismatch effect for VPE in two-question contexts ($\beta = -1.4$, $p < .01$) was smaller in magnitude than in one-question contexts ($\beta = -.7$, $p < .001$) (mismatch effect for sluicing was not reliable). Thus, when VPE is biased toward an interpretation where each clause answers a distinct question, acceptability is less affected by structural mismatch than when the sentence is construed as answering a single question.

- (1) a. VPE-MATCH: Cindi read *Moby Dick*, and Ed did (read *Moby Dick*), too.
b. VPE-MISMATCH: *Moby Dick* was read by Cindi, and Ed did (read *Moby Dick*), too.
- (2) PSEUDOGAPPING-MISMATCH: *Moby Dick* was read by Cindi, and Ed did (read) *Catch 22*.
- (3) SLUICING-MISMATCH: Someone read *Moby Dick*, but I can't remember by whom (it was read t_{wh}).
- (4) a. Who read *Moby Dick* b. Who was *Moby Dick* read by? Who read *Moby Dick*?
- (5) a. Who read what? b. What was read by whom? Who read what?
- (6) a. Did someone read *Moby Dick*? Who read it?
b. Was *Moby Dick* read by someone? Who read it?
- (7) a. Who was *Moby Dick* read by? *Moby Dick* was read by Cindi, and Ed did, too.
b. Was *Moby Dick* read by anyone? If so, who read it? *Moby Dick* was read by someone, but Ed didn't.
c. Was *Moby Dick* read by anyone? If so, who read it? *Moby Dick* was read by someone, but I don't remember who.